A B S T R A C T

A pseudo noise generator is disclosed, in which a first arbitrary random number generator generates two groups of first random number signals respectively corresponding to divided Amplitude Probability Distribitions, which are obtained by dividing a specified Amplitude Probability Distribition into two parts at a specified level. A second arbitrary random number generator generates two groups of second random number signals respectively defined by a specified Pulse Duration Distribution and a specified Pulse Spacing Destribution at said specified level. Ones of said two groups of first random number signals are selected in accordance with said specified Pulse Duration Distribution and said specified Pulse Spacing Destribution defined at said specified level. The selected signals are converted ,by a D/A converter, to pseudo noise of analog value in accordance with said Amplitude Probability Distribition, said specified Pulse Duration Distribution and said specified Pulse Spacing Destribution at said specified level.